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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,949	11/24/2003	Donna K. Hodges	BS030347	5272
38516 7590 07/23/2008 SCOTT P. ZIMMERMAN, PLLC PO BOX 3822 CARY, NC 27519				
EXAMINER SIKRI, ANISH				
ART UNIT 2143		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/720,949

Applicant(s)

HODGES ET AL.

Examiner

ANISH SIKRI

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-20 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-8508)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8 are rejected under 35 U.S.C 103 (a) as being unpatentable over Logan et al (US Pub 2003/0093790), in view of Ando (US Pub 2003/0126610).

Consider Claim 1, Logan et al discloses a method, comprising: receiving a first data stream at a computer, the first data stream comprising packets of data packetized according to a packet protocol (Logan et al, [0015], [0054], Logan et al disclosed on how data is parsed and packetized); recursively segmenting the first data stream into segments (Logan et al, [0084], [0086], Logan et al disclosed on how data stream is recursively segmented), such that a characteristic of a preceding segment determines how a current segment is segmented (Logan et al, [0084], [0086]); recognizing a repetitive segment and inserting a data compression result of a preceding segment to reduce processing of redundant segments (Logan et al, [0058], Logan disclosed on how it manages redundant segments created by the system); dispersing at least one of the segments via a network for a subsequent processing service; (Logan et al, [0096], Logan et al disclosed on how segments are transmitted/dispersed in the system) receiving a result of the processing service (Logan et al, [0096]-[0101], Logan et al disclosed on the many types of forms can the segments be processed into); aggregating the result of the processing service and an unprocessed segment into a second data stream; and communicating the second data stream via the network (Logan et al, [0096]-[0101], Logan et al disclosed on how segments are cross-referenced together).

Logan et al does not explicitly disclose a subcontracted processing service provided from a different service provider; and grouping together packets of data that require the subcontracted processing service as a new segment; subcontracting the new segment to the difference service provider to receive the subcontracted processing service;

Nonetheless, Ando disclosed a subcontracted processing service provided from a different service provider (Ando, [0042], [0045], Ando disclosed that the IP streaming system does provide subcontracted multimedia distribution processing); and grouping together packets of data that require the subcontracted processing service as a new segment (Ando, [0046], Ando disclosed on how the content/data is obtained from the distribution server after receiving the data from the user) ; subcontracting the new segment to the difference service provider to receive the subcontracted processing service (Ando, [0045]-[0046], Ando disclosed on how the different service providers provide content processing service in the network).

Both Ando and Logan et al provide features related to communication services. Therefore one of ordinary skill in the art would have been motivated to combine the teachings since both are within the same environment.

Therefore, it would have been obvious to a person skilled in the art at the time of the invention was made to incorporate the use of subcontracted/distributed processing taught by Ando, in the system of Logan et al for the purpose of reducing system/network load.

Consider Claim 2, Logan et al-Ando disclosed the method according to claim 1, wherein recursively segmenting the first data stream comprises observing a sequence of packets having a similar structure to a previous sequence of packets and segmenting the sequence of packets to have similar content to the previous sequence of packets (Logan et al, [0084], [0086]).

Consider Claim 3, Logan et al-Ando disclosed the method according to claim 1, wherein recursively segmenting the first data stream comprises using a chronological characteristic of the preceding segment to describe the current segment (Logan et al, [0080]-[0086]).

Consider Claim 4, Logan et al-Ando disclosed the method according to claim 1, further comprising replacing a complex segment with a common descriptor to produce an abbreviated annotation (Logan et al, [0080]-[0086], Logan et al disclosed on the use of signatures and "content-based time stamps").

Consider Claim 5, Logan et al-Ando disclosed the method according to claim 1, further comprising accruing historical routing information for a segment, the historical routing information describing at least one destination of the segment as the segment travels via the network (Logan et al, [0092]-[0093]).

Consider Claim 6, Logan et al-Ando disclosed the method according to claim 5, further comprising assembling the second data stream using the historical routing information for the segment (Logan et al, [0294]-[0297]).

Consider Claim 7, Logan et al-Ando disclosed the method according to claim 1, further comprising accruing historical processing information for a segment, the historical processing information describing at least one process performed on the segment (Logan et al, [0294]-[0297]).

Consider Claim 8, Logan et al-Ando disclosed the method according to claim 7, further comprising assembling the second data stream using the historical processing information for the segment (Logan et al, [0294]-[0297]).

Claims **9-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al (US Pub 2003/0093790), in view of Daniels (US Pat 6,285,871) and in further of view of Ando (US Pub 2003/0126610).

Consider Claim 9, Logan et al discloses a method of providing communications services, comprising: receiving a request for communications service (Logan et al, [0015]-[0016], Logan et al disclosed on communications are requested in the system), the request for communications service originating from a user's client device (Logan et

al, [0299]), the request for communications service communicating via a communications network to a service provider (Logan et al, [0299]-[0300]).

And the data received as packets of data packetized according to a packet protocol (Logan et al, [0015], [0054], Logan et al disclosed on how the data is parsed and packetized); recursively segmenting the packets of data into segments according to a segmentation profile stored in memory (Logan et al, [0258], Logan et al disclosed on how the packets are segmented based on user's preference/profile), the segmentation profile storing rules that define actions when a similar characteristic between segments is encountered (Logan et al, [0422]-[0423]), such that a characteristic of a preceding segment determines how a current segment is segmented (Logan et al, [0080], [0084]); recognizing a repetitive segment and inserting a data compression result of a preceding segment to reduce processing of redundant segments (Logan et al, [0058], Logan disclosed on how it manages redundant segments created by the system); when a common processing service is required (Logan et al, [0065], [0096]), then grouping together individual packets of data as a new segment (Logan et al, [0065], [0096], Logan et al disclosed on how the data is processed), each of the individual packets in the new segment requiring the common processing service dispersing at least one of the segments via a network for a subsequent processing service (Logan et al, [0096], Logan et al disclosed on how segments are transmitted/dispersed in the system); dispersing the new segment via the network to receive the common processing service (Logan et al, [0065], [0096]-[0101]); receiving results of the subsequent processing service (Logan et al, [0065], [0096]-[0101]); receiving a result of

the common processing service (Logan et al, [0065], [0096]-[0101]); assembling a data stream, the comprising i) the results of the subsequent processing service (Logan et al, [0096]-[0101]) and ii) an unprocessed recursively segmented segment (Logan et al, [0096]-[0101]) and iii) the results of the common processing service (Logan et al, [0096]-[0101]); and communicating the assembled data stream via the network to fulfill the requested communication service (Logan et al, [0096]-[0101], Logan et al disclosed on the many types of characteristics used to process the data stream/segments which are created/shared among systems and users -).

But Logan et al does not explicitly disclose querying a payment history database for historical payment information relating to the user's history of payments to creditors; querying a usage history database for historical usage information relating to the user's past usage of communications services; querying a credit database, for credit information relating to a line of credit with a credit card issuer; linearly predicting that the user can be trusted to pay for the requested communications service, even though the total bill is undetermined, based on the historical payment information, the historical usage information, and the credit information.

Nonetheless, Daniels discloses the querying a payment history database for historical payment information relating to the user's history of payments to creditors (Daniels, Col 4 Lines 37-60, Daniels disclosed on how billing information is obtained); querying a usage history database for historical usage information relating to the user's past usage of communications services (Daniels, Col 4 Lines 37-60, Daniels disclosed on collection of customer's usage histories); querying a credit database, for credit

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information relating to a line of credit with a credit card issuer (Daniels, Col 4 Lines 37-60, Daniels disclosed on how it obtains queries regarding customers with good credit and bad credit); linearly predicting that the user can be trusted to pay for the requested communications service (Daniels, Col 4 Lines 37-60, Daniels disclosed on how the system analyzes the user's history, credit and usage, to predict their creditworthiness, Daniel teaching is inherent because it discloses that the user will have access to the network, as it assumes the customer will pay, but customers with bad credit will either have limited access or no access to the network, once the their data is analyzed by the system), even though the total bill is undetermined, based on the historical payment information, the historical usage information, and the credit information (Daniels, Col 4 Lines 37-60)

However, Daniels discloses that still subscribers may be frequent roamers with established credit history and thus can be allowed to roam everywhere (full network access), without the need for additional authentication. Whereas less frequent users of the network (restricted network access).

Both Daniels and Logan et al provide features related to communication services. Therefore one of ordinary skill in the art would have been motivated to combine the teachings since both are within the same environment.

Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify the invention of Logan et al, to include the feature of Daniel's in order to reduce the credit risk to providers.

Logan et al does not explicitly disclose a subcontracted processing service provided from a different service provider; subcontracting the new segment to the difference service provider to receive the subcontracted processing service;

Nonetheless, Ando disclosed a subcontracted processing service provided from a different service provider (Ando, [0042], [0045], Ando disclosed that the IP streaming system does provide subcontracted multimedia distribution processing); (Ando, [0046], Ando disclosed on how the content/data is obtained from the distribution server after receiving the data from the user) ; subcontracting the new segment to the difference service provider to receive the subcontracted processing service (Ando, [0045]-[0046], Ando disclosed on how the different service providers provide content processing service in the network).

Both Ando and Logan et al provide features related to communication services. Therefore one of ordinary skill in the art would have been motivated to combine the teachings since both are within the same environment. Therefore, it would have been obvious to a person skilled in the art at the time of the invention was made to incorporate the use of subcontracted/distributed processing taught by Ando, in the system of Logan et al for the purpose of reducing system/network load.

Consider Claim 10, Logan et al-Daniels-Ando, disclosed the method according to claim 9, further comprising communicating the assembled data stream to a client communication device (Logan et al, [0294]-[0297]).

Consider Claim 11, Logan et al- Daniels-Ando, disclosed the method according to claim 9, further comprising receiving a request for the assembled data stream (Logan et al, [0294]-[0297]).

Consider Claim 12, Logan et al- Daniels-Ando, disclosed the method according to claim 9, wherein recursively segmenting the first data stream comprises using a chronological characteristic of one segment to describe another segment (Logan et al, [0080]-[0086]).

Consider Claim 13, Logan et al- Daniels-Ando, disclosed the method according to claim 9, wherein recursively segmenting the first data stream comprises recognizing a repetitive segment and inserting a data compression result of a preceding segment to reduce processing of redundant segments (Logan et al, [0058]).

Consider Claim 14, Logan et al- Daniels-Ando, disclosed the method according to claim 9, wherein recursively segmenting the first data stream comprises observing a sequence of packets having a similar structure to a previous sequence of packets and segmenting the sequence of packets to have similar content to the previous sequence of packets (Logan et al, [0080]-[0086]).

Consider Claim 15, Logan et al- Daniels-Ando, disclosed the method according to claim 9, further comprising accruing historical routing information for a segment, the historical routing information describing at least one destination of the segment as the segment travels via the network (Logan et al, [0092]-[0093]).

Consider Claim 16, Logan et al- Daniels-Ando, disclosed the method according to claim 15, further comprising assembling the second data stream using the historical routing information for the segment (Logan et al, [0294]-[0297]).

Consider Claim 17, Logan et al- Daniels-Ando, disclosed the method according to claim 9, further comprising accruing historical processing information for a segment, the historical processing information describing at least one process performed on the segment (Logan et al, [0294]-[0297])

Consider Claim 18, Logan et al- Daniels-Ando, disclosed, the method according to claim 17, further comprising assembling the second data stream using the historical processing information for the segment (Logan et al, [0294]-[0297])

Claims 19, and 20 have similar limitations as to claim 9, therefore they both are rejected under the same rationale as to claim 9.

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH SIKRI whose telephone number is 5712701783. The examiner can normally be reached on 8am - 5pm Monday - Friday.

If attempts to reach the examiner/Nathan J. Flynn/

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Supervisory Patent Examiner, Art Unit 2143miner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anish Sikri/
Examiner, Art Unit 2143

July 18, 2008